CURRENT AFFAIRS WEEKLY

WEEK-1
SEPTEMBER 2020

MAINS

- **Age of Earth's Inner Core Revised**
  GEOGRAPHY
- **Gove AFSPA extended in Assam**
- **SC notice on Nagaland Lokayukta**
  GOVERNANCE
- **African Union's peace and Security Architecture: Filling the gaps**
  INTERNATIONAL ORGANISATION
- **The country's new DNA law raises privacy concerns**
  POLITY & GOVERNANCE
- **Government plans to bring social security schemes under one umbrella**
  WELFARE SCHEMES

PRELIMS

- India Component of the NDC
  CONSERVATION
- Contingency Fund (CF)
  ECONOMY
- New rules for administration of J&K
- Niti Aayog's Export Preparedness Index 2020
  GOVERNANCE
- Africa declared free of wild polio in 'milestone'
- Glanders disease
  HEALTH
- Country's longest 'ropeway over a river' inaugurated in Guwahati
  INFRASTRUCTURE
- China twist in India-Bangladesh river dispute
  INTERNATIONAL RELATIONS
- Armed Forces Tribunal
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— NOTE —

The current affairs articles are segregated from prelims and mains perspective, such separation is maintained in terms of structure of articles. Mains articles have more focus on analysis and prelims articles have more focus on facts.

However, this doesn't mean that Mains articles don't cover facts and PT articles can't have analysis. You are suggested to read all of them for all stages of examination.

CURRENT AFFAIRS ANALYST

WEEK- 1 (SEPTEMBER, 2020)

CONTENTS

Section - A: MAINS CURRENT AFFAIRS		
Area of GS	**Topics in News**	**Page No.**
GEOGRAPHY	• Age of Earth's inner core revised	02
GOVERNANCE	• Gove AFSPA extended in Assam	04
	• SC notice on Nagaland Lokayukta	06
INTERNATIONAL ORGANISATIONS	• African Union's peace and security architecture: Filling the gaps	09
SCIENCE & TECHNOLOGY	• The country's new DNA law raises privacy concerns	11
WELFARE SCHEMES	• Government plans to bring social security schemes under one umbrella	14
Section - B: PRELIMS CURRENT AFFAIRS		
Area of GS	**Topics in News**	**Page No.**
CONSERVATION	• India Component of the NDC	18
ECONOMY	• Contingency Fund (CF)	19
GOVERNANCE	• New rules for administration of J&K	20
	• Niti Aayog's Export Preparedness Index 2020	21
HEALTH	• Africa declared free of wild polio in 'milestone'	22
	• Glanders Disease	25
INFRASTRUCTURE	• Country's longest 'ropeway over a river' inaugurated in Guwahati	26
INTERNATIONAL RELATIONS	• China twist in India-Bangladesh river dispute	27
POLITY	• Armed Forces Tribunal	30
SCIENCE & TECHNOLOGY	• Omega Centauri Globular Cluster	31

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SECTION: A

(MAINS)

CURRENT AFFAIRS

AGE OF EARTH'S INNER CORE REVISED

CONTEXT

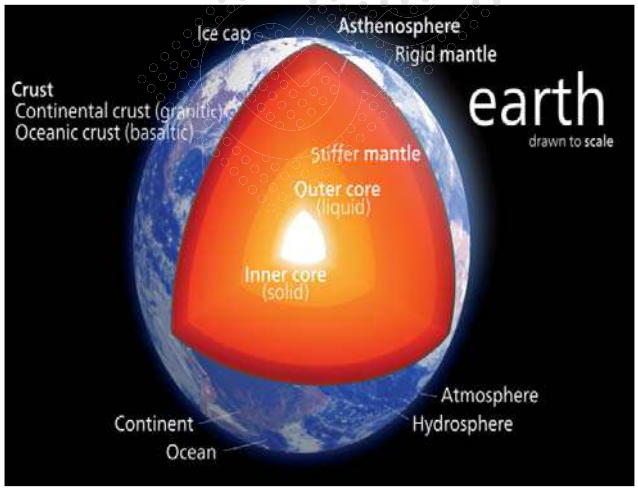
Researchers have revised the estimate of the age of Earth's solid inner core to 1-1.3 billion years from 565 million years old.

⦿ BACKGROUND

- Over the years, estimates for core age and conductivity have gone from very old and relatively low, to very young and relatively high.
- But these younger estimates have also created a paradox, where the core would have had to reach unrealistically high temperatures to maintain the geodynamo for billions of years before the formation of the inner core.
- The new research solves that paradox by finding a solution that keeps the temperature of the core within realistic parameters.
- Furthermore, the experiments help pin down the magnitude of how the core conducts heat, and the energy sources that power the planet's geodynamo -- the mechanism that sustains the Earth's magnetic field, which keeps compasses pointing north and helps protect life from harmful cosmic rays.
- Finding that solution depended on directly measuring the conductivity of iron under corelike conditions – where pressure is greater than 1 million atmospheres and temperatures can rival those found on the surface of the sun.

⦿ ANALYSIS

Looking inside the Earth



The Earth's interior is composed of four layers, three solid and one liquid—not magma but molten metal, nearly as hot as the surface of the sun.

- **Inner core:** The deepest layer is a solid iron ball, about 1,500 miles (2,400 kilometers) in diameter.
  - Although this inner core is white hot, the pressure is so high the iron cannot melt.
  - The iron isn't pure—scientists believe it contains sulfur and nickel, plus smaller amounts of other elements.
  - Estimates of its temperature vary, but it is probably somewhere between 9,000 and 13,000 degrees Fahrenheit (5,000 and 7,000 degrees Celsius).
- **Outer core:** Above the inner core is the outer core, a shell of liquid iron. This layer is cooler but still very hot, perhaps 7,200 to 9,000 degrees Fahrenheit (4,000 to 5,000 degrees Celsius).
  - It too is composed mostly of iron, plus substantial amounts of sulfur and nickel. It creates the Earth's magnetic field and is about 1,400 miles (2,300 kilometers) thick.

Mantle: The next layer is the mantle. Many people think of this as lava, but it's actually rock. The rock is so hot, however, that it flows under pressure, like road tar. This creates very slow-moving currents as hot rock rises from the depths and cooler rock descends.

Crust: The crust is the outermost layer of the Earth. It is the familiar landscape on which we live: rocks, soil, and seabed. It ranges from about five miles (eight kilometers) thick beneath the oceans to an average of 25 miles (40 kilometers) thick beneath the continents.

Key-highlights of the study:

- The new research looked at the paradox and found a solution by keeping the temperature of the core within **realistic parameters.**
- The researchers achieved these conditions by squeezing laser-heated samples of iron between two diamond anvils.
- Result: The new conductivity was measured at 30-50 per cent less than the conductivity of the young core estimate.
- The research suggested that geodynamo was sustained by two different energy sources and mechanisms:
  - Thermal convection (the buoyancy is due to temperature fluctuations)

- Compositional convection (buoyancy produced by light material released at the inner-core boundary)

- That is, at the time the inner core started to grow, the geodynamo got powered by a new source of energy.
- With improved information on conductivity and heat transfer over time, the researchers made a more precise estimate of the age of the inner core.

Geodynamo paradox

- Earth's inner core is the **innermost geologic layer** of the Earth, it is made of iron and is solid. And it is very hot, about 6,000 degrees Celsius.
- The outer core is also **iron**, but is liquid due to relatively lower pressure.
- As lighter elements rise through the liquid iron of the outer core at different temperatures, they cause convection currents, believed to resemble a dynamo.
- The process is like cream swirling in a mug of coffee.
- The circulation of liquid metal creates electric currents (kinetic energy is converted into magnetic energy) and turns Earth into a giant electromagnet.
- This is how Earth's magnetic field is generated. The process is called **geodynamo**, and is fed by **convection**.

How the age of the inner core was 'earlier' calculated?

- The age of the inner core, however, has been essentially calculated by the effectiveness of iron to transfer heat, known as **thermal conductivity.**
- But there was a paradox with the previously determined younger estimates of the age of the inner core: The core would have had to reach unrealistically high temperatures to sustain the **geodynamo** for billions of years before the inner core would be formed.
- The high amount of conductivity of the iron core, however, was impossible because it would have little energy to convection.
- It also only supported the existence of the geodynamo for about a billion year, whereas other studies have showed that the process has existed for at least 3.4 billion years.

Earth's magnetic field

- This revised age of the inner core could correlate with a spike in the strength of the Earth's magnetic field as recorded by the arrangement of magnetic materials in rocks that were formed around this time.
- Together, the evidence suggests that the formation of the inner core was an essential part of creating today's robust magnetic fields.
- The Earth's magnetic field, generated 3,000km below our feet in the liquid iron core, is crucially important to life on our planet.
- It extends out into space, wrapping us in an electromagnetic blanket that shields the atmosphere and satellites from solar radiation.
- The magnetic field is the weakest at the equator, where the dent is located, which makes it worse than if it were at any other place.

⊙ CONCLUSION

The debate about the age of the inner core and the resulting thermal evolution of the Earth is not yet over. More palaeomagnetic data are needed to confirm that the sharp increase in magnetic field strength that we have observed is really the largest in the planet's history. Furthermore, modelling needs to verify whether some other event could have created the magnetic strengthening at this time.

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GOVE AFSPA EXTENDED IN ASSAM

CONTEXT

AFSPA extended for six months in Assam due to recent insurgent attacks, recovery of arms. The state has been declared a "disturbed area" on account of recent insurgent attacks on security forces in the Northeast and recovery of illegal arms and ammunition from different areas of Assam

⊙ ABOUT:

- The state has been declared a "disturbed area" on account of recent insurgent attacks on security forces in the Northeast and recovery of illegal arms and ammunition from different areas of Assam.
- Many civil society groups and activists have been demanding the withdrawal of the draconian law from the state.
- Many civil society groups and activists have been demanding the withdrawal of the draconian law from the state.
- The AFSPA, which empowers security forces to conduct operations, arrest anyone anywhere without prior notice, has been continuing in Assam since November 1990. It is renewed every six months.
- Members of several extremist groups have surrendered in masse but some other outfits may attempt to exploit the situation in the wake of the enactment of the Citizenship (Amendment) Act and try to lure misguided youths into its fold.

Reasons for Insurgency in Assam:

- There have been many factors responsible for the constant disorder in state of Assam since past till the date. In this context, it is relevant to mention some of the key factors which are accountable for such issues in the state of Assam:

- **Awareness of Isolation:**
  - At the time of independence and after independence, an awareness of isolation began to rise among the Assamese.
  - Discovery of oil in several areas of upper Assam in the late 1960s pushed up the crude oil production figure to an average of 3.5 million tons per year. From 1970 onwards, the figure touched 5 million tons per year.
  - However, the royalty paid by the centre to Assam was not satisfactory. The state government and people of Assam demanded to raise the royalty. However, central government refused the state government's demand for the revision of royalty on crude oil. As a result, the feeling spread among the people of the state that the center was merely exploiting the resources of the region without considering Assam's ever deteriorating economic situation.
- **Illegal Migration:**
  - Assamese became aware that along with economic exploitation by the centre, they had to face forthcoming danger of being a minority in their own state.
  - The vast growth in Muslim population had overburdened the state. Moreover, Bengali Muslims who had initially identified themselves as Assamese speaking population began to register themselves as Bengali speaking people especially between 1971 and 1991.This led to increase in tensions in the region.
- **Bodo Movement:**
  - The Bodos are the earlier settlers of the plains of the state. This tribe is a largest tribe amongst the earliest settlers in the state. This tribe is mainly concentrated on the north bank of the Brahmaputra River and they have also scattered in other parts of the state. Socio-economic condition of this tribe was miserable in the initial years after the independence.
  - They were deprived of their constitutional right of protection. Bodos were considered as another form of Assamese sub-nationality.
  - In addition to this, they were isolated from the land due the encroachment of their land by illegal migrants. Further, the situation became more severe when they were deprived of government jobs on the ground that the knowledge of the Assamese language is essential.
  - The newly emerged middle class amongst them tried to draw the attention of the government to their issues but they remained unattended. Consequently, they initiated a movement on the ground of negligence of Bodo language, economic deprivation, inattentiveness of ethnic Assamese and cultural discrimination.
- **Karbi and Dimasa Movement:**
  - Karbi Anlong and North Cachar Hills are two districts of Assam where insurgency took place for the demand for statehood. It is an outcome of the political aspirations of the hill people and cultural discrimination by Assamese.

- **The United Liberation Front of Assam (ULFA):**
  - An insurgent group, was formed in 1979 and marked the beginning of insurgency in Assam. The main aim of ULFA was to "liberate Assam through armed struggle from the exploitative attitude of the central government towards Assam and establish a sovereign independent Assam.

Major militant outfits in Assam

- The major militant outfits presently active in the State of Assam are United Liberation Front of Asom – (Independent), (ULFA-I), National Democratic Front of Bodoland (Saoraigwra), (NDFB-S).
- ULFA and NDFB have been declared as Unlawful Associations under the provisions of Unlawful Activities (Prevention) Act, 1967.
- Besides, Karbi Peoples Liberation Tigers (KPLT) is active in Karbi Anglong District of Assam. ULFA (Pro-Talk), NDFB (Ranjan Diamary), NDFB (Progressive) and Karbi Longri NC Hills Liberation Front (KLNLF) are under SoO agreement with the Government of India and /or Government of Assam.

Impact of Insurgency Activities

- In the oil-rich Assam, militants have periodically targeted oil and gas pipelines for sabotage, alleging that India is exploiting the natural resources of the state.
- National projects such as the extension of the rail lines have either been stalled or have moved with a tardy pace after militants attacked the construction sites and abducted workers.
- Militancy has also stalled the prospect of linking the economy of the northeast with the neighbouring Southeast Asian countries.
- Tourism, which could have flourished in the scenic northeast, has suffered a lot due to instability in the region.
- The education sector too has been affected by militancy. A number of schools in states like Tripura's interior areas have been shut as teachers avoid the areas due to fear of militant strikes.
- Extortion by the militant groups on the national highways that connect the different states with mainland India has shot up the prices of essential commodities

⊙ CONCLUSION:

The insurgencies of NE have continued for the past seven decades despite various efforts by GoI for a permanent solution. A peaceful NE without insurgencies is a strategic necessity for India, especially for the success of the 'Act East Policy'.

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SC NOTICE ON NAGALAND LOKAYUKTA

CONTEXT

The Supreme Court issued notice in a petition filed by the state government seeking cessation of the Nagaland Lokayukta's powers and functions.

⊙ BACKGROUND:

The origin of the Lokayukta can be traced to the Ombudsmen in Scandinavian countries. The institution of ombudsman first came into being in sweden in 1713 when a "chancellor of justice" was appointed by the king to act as an invigilator to look into the functioning of a war time government. From 1713 the duty of this ombudsman was to mainly ensure the correct conduct of royal officials. The institution of the ombudsman was firmly incorporated into the Swedish constitution from 1809.

In India, the idea of an ombudsman first came up in Parliament during a discussion on budget allocation for the Law Ministry in 1963.

- **1966:** The **Administrative Reforms Commission** headed by **Late Morarji Desai** in 1966 recommended the setting up of the institution of Lokayukta for the purpose of appointment of Lokayukta at the state's level-

"to improve the standards of public administration, by looking into complaints against the administrative actions, including cases of corruption, favouritism and official indiscipline in administrative machinery."

- **1968:** The Lokpal Bill was introduced in parliament but was not passed. Eight attempts were made till 2011 to pass the Bill, but in vain.
- **2002:** The Commission to Review the Working of the Constitution headed by M.N. Venkatachiliah recommended the appointment of the Lokpal and Lokayuktas; also recommended that the PM be kept out of the ambit of the authority.
- **2005:** The second Administrative Reforms Commission chaired by Veerappa Moily recommended that office of Lokpal be established without delay.
- **2011:** The government formed a Group of Ministers, chaired by Pranab Mukherjee to suggest measures to tackle corruption and examine the proposal of a Lokpal Bill.
- **2013:** Lokpal and Lokayuktas Bill, 2013 was passed in both House of Parliament.
- **2016:** Lok Sabha agreed to amend the Lokpal Act and Bill was sent to Standing Committee for review.

The office of Ombudsman in countries

- The office of Ombudsman has been in existence in Finland since 1919.
- Denmark introduced the system in 1955.
- Norway and New Zealand adopted it in 1962.
- United Kingdom appointed a parliamentary commissioner for administration in 1967.
- Several countries in the world have adopted the Ombudsman like institution.

⊙ ANALYSIS

What is the issue?

- A three-Judge Bench of Chief Justice of India **SA Bobde** and Justices **AS Bopanna** and **V Ramasubramanian** issued notice after **Advocate General for the State KN Balgopal** made submissions on behalf of the state.
- The petition by the State of Nagaland also prays for the Court to direct the Lokayukta to assign all the pending matters before him to the Upa-Lokayuktas.
- This is in addition to a prayer seeking an order to prohibit the Lokayukta from exercising his powers and functions as per the *Nagaland Lokayukta Act of 2017*.
- The state government claims that since April 2019, the Lokayukta has fallen short of the standards that are expected from a person holding his position.
- Moreover, his unreasonable demands and "capricious behaviour" have made it untenable for him to continue in the post, it is averred.
  - Lokayukta Justice **Uma Nath Singh**, who is former Chief Justice of the Meghalaya High Court, also made a request to the Chief Secretary of the state government for relaxation of Section 4(2)(c) of the Nagaland Lokayukta Act in order to facilitate his engagement as an arbitrator in an arbitration matter.
- The provision makes it impermissible for the Lokayukta to hold any other office.
- Elaborating on other "arbitrary demands" made by Singh, the petition states that not only did he seek permission to function online from Delhi, but

he also made a request before the Chief Secretary of the state for accommodation, among other things.

What is Lokayukta?

- Lokayukta is an anti-corruption authority or ombudsman – an official appointed by the government or by parliament to represent the interests of the public.
- Most importantly, it investigates allegations of corruption and mal-administration against public servants and is tasked with speedy redressal of public grievances.

Who are the public servants covered?

The public servants who are covered by the Act include:

- all Ministers and Members of the State Legislature;
- all officers of the State Government;
- Chairman, Vice Chairman of local authorities, Statutory bodies or Corporations established by or under any law of the State Legislature, including Co-operative Societies;
- Persons in the service of Local Authorities, Corporations owned or controlled by the State Government, a company in which not less than 50% of the shares are held by the State Government, Societies registered under the State Registration Act, Co-operative Societies

Who is appointed as the Lokayukta?

- The Lokayukta is usually a former High Court Chief Justice or former Supreme Court judge and has a fixed tenure.
  - The tenure of Lokayukta is generally 5 years. However, in Uttar Pradesh it is 8 years and now in Rajasthan also it will become 8 years.
- The Chief Minister selects a person as the Lokayukta after consultation with-
  - the High Court Chief Justice
  - the Speaker of the Legislative Assembly
  - the Chairman of the Legislative Council
  - Leader of Opposition in the Legislative Assembly
  - the Leader of Opposition in the Legislative Council
- **The appointment is then made by the Governor.**
- Once appointed, Lokayukta cannot be dismissed nor transferred by the government, and can only be removed by passing an impeachment motion by the state assembly.

How does Lokayukta work?

- The Lokayukta works along with the **Income Tax Department** and the **Anti Corruption Bureau**.
- The Lokayukta (sometimes referred to the institution itself)-
  - investigates allegations of corruption and mal-administration against public servants
  - tasked with speedy redressal of public grievances.
- However, public can't lodge complain for any issue which is more than 5 years old.

States that have Lokayukta

- Maharashtra was the first State to introduce the institution of Lokayukta in 1971.
- This was followed by similar acts that were enacted by the states of Odisha, Rajasthan, Bihar, Uttar Pradesh, Karnataka, Madhya Pradesh, Andhra Pradesh, Nagaland, Gujarat, Kerala, Tamil Nadu and the union territory of Delhi.

⊙ CONCLUSION

The state of Nagaland lags far behind the rest of the country and other northeastern states. What's more disturbing is that corruption is deep-rooted and pervasive, crippling everything and becoming an accepted norm and a way of life. Corruption has totally ruined the socio-economic and the moral fabric of Naga society. In this situation, the disturbance between the system of governance is not a good thing. Urgent action is needed to deal with the situation and bring normalcy in the state.

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AFRICAN UNION'S PEACE AND SECURITY ARCHITECTURE: FILLING THE GAPS

CONTEXT

African Union's Peace and Security: the foundation for the Continent's continued progress and socio-economic transformation, is today suffering from internal challenges and gaps.
Let's analyse how significant and effective is the African Union's peace and security, and is this institution best placed to deal with Africa's security problems?

⊙ BACKGROUND

- Since its inception in 2002 the African Union has been under pressure to resolve the extensive peace and security challenges facing the continent.
- In particular, it's tried to address the limitations faced by its predecessor, the Organisation of African Unity's (OAU), in this area.
- The biggest change has been the shift away from the OAU's so-called non-interference stance to the AU's more interventionist approach.
- This is most explicitly found in Article 4 of the AU Constitutive Act.

About African Union

- The African Union (AU) is a continental body consisting of the 55 member states that make up the countries of the African Continent.
- It was officially launched in 2002 as a successor to the Organisation of African Unity (OAU, 1963-1999).
- The AU is guided by its vision of "***An Integrated, Prosperous and Peaceful Africa, driven by its own citizens and representing a dynamic force in the global arena.***"

⊙ ANALYSIS

The Peace & Security Council

- The AU's African Peace and Security Architecture was established when the organisation adopted the Protocol on the **Establishment of the Peace and Security Council** in July 2002.
- It is guided by the AU's mandate and its interventionist approach.
- The architecture, which has five pillars composed of AU organs and bodies, drives the AU's peace and security work.
- Its aim is to prevent, manage and resolve conflicts by working collaboratively with the Regional Economic Communities and Mechanisms.
- Therefore, the peace and security architecture has a role to play from the early warning and conflict prevention stages to that of post-conflict development.
- The five pillars are:
  - the Peace and Security Council
  - the Panel of the Wise
  - the Continental Early Warning System
  - the Standby Force
  - the Peace Fund
- While not all pillars function as intended, there have nevertheless been a number of success stories in which the architecture was instrumental.

Assessing the African Peace and Security Architecture

- **Peace and Security Council**
  - The Peace and Security Council is the **main decision-making body** of the peace and security architecture and can take decisions on a number of fronts. These include:
    - implementing the AU's common defence policy,
    - performing peace making and building functions,
    - authorising and overseeing peace support missions,
    - recommending Article 4(h) interventions for situations of war crimes, genocide and crimes against humanity, and
    - impose sanctions for unconstitutional changes of government, to name a few.
- **Panel of the Wise**
  - It acts as the **advisory body** to the Peace and Security Council. It has a mediation and preventative diplomacy role.
  - The panel has successfully undertaken various roles, including when there's been need for a neutral, respected diplomatic intervention.
- **Continental Early Warning System**
  - The mandate of the Continental Early Warning System is conflict prevention and anticipating events.

- **African Standby Force**
  - Composed of contingents from the five regions, the African Standby Force's job is to implement decisions made by the Peace and Security Council.
  - This includes authorised interventions, conflict and dispute prevention, observation, monitoring and any type of peace support mission, humanitarian assistance and peacebuilding.
- **Peace Fund**
  - The Peace Fund is tasked with the mammoth role of ensuring availability of funds.

Recent development between India and Africa

India has become the **fifth largest investor** in Africa, with cumulative investments of more than $54 billion. Bilateral trade between the two countries stood at $62.16 billion in 2017-18, up 21.56% year-on-year. India is **Africa's third largest export destination** that sources nearly 18% of its crude oil requirements besides LNG from the region.

- **Lucknow Declaration**
  - In February, 2020, India and 50 African countries adopted the **'Lucknow Declaration'**.
  - The declaration states that all the signatories ***"commit to continue our collaboration in the fields of peace and security including conflict prevention, resolution, management and peace building through exchange of expertise and training, strengthening regional and continental early warning capacities and mechanisms, enhancing the role of women in peace keeping and propagating the culture of peace".***
  - The declaration also stated that all member countries "encourage enhanced cooperation between India and Africa on the evolving concept of Indo-Pacific and welcome the **AU (African Union) vision for peace and security** in Africa that coincides with India's vision of SAGAR (Security and Growth for all in the Region)".
- **Financial grant:**
  - In 2019, India extended a grant of $50 million package to **sub-Saharan Niger**, which the French-speaking West African country has utilised to finance the high-profile **African Union (AU) summit** it hosted last weekend.
  - This was the first time India has extended a grant for an AU summit.

The Gaps

- **Lack of accuracy and will:** The mandate of the Continental Early Warning System is conflict prevention and anticipating events, which rely on accurate data and political will to act, yet the Peace and Security Council tends to react more to conflicts rather than preempt them. The Continental Early Warning System continues to suffer from staff and funding shortages, building capacity is ongoing.
- **Long Delays in operation:** Despite the 2003 decision to establish the force, it was only in 2016 that the African Standby Force was officially considered to have obtained full operational capacity. Since then, it has yet be deployed.
- **Struggling with funds:** The vast majority of AU members struggle to meet their membership dues, and self-financing of the AU has yet to prove possible. This means that the fund struggles to secure support from African states.

Ways to improve the structure

- **Improvisation in financing**: In order to cope with the huge security problems in Africa there must be an increase to the PSC's severely undersized budget and scant staff.
- **Stronger relationship with strong organizations:** The PSC must develop a stronger relationship with the UN Security Council, the G8, the EU, and other sources of external funding.
- **Strengthening the structure:** Institutional design must be strengthened, particularly in respect to addressing the non-military dimensions of security (such as environmental degradation and disease), and the relationship between military and non-military elements.
- **More focus to increase efficiency & consistency:** PSC personnel must continue to implement working procedures to increase operational efficiency and consistency.

CONCLUSION

In the medium- to long-term the PSC has the potential to become an important institutional environment for socialisation among African governments, influencing attitudes and responses through official statements and peace operations. Overall, the success of the African Peace and Security Architecture is paramount for Africa's development and human security. Its value in the continent's peace and security agenda should not be underestimated.

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THE COUNTRY'S NEW DNA LAW RAISES PRIVACY CONCERNS

CONTEXT

The law goes well beyond criminal matters and regulates civilian and medical use of DNA.

ABOUT:

- Parliament is set to pass a law to regulate the use of DNA technology. Since the DNA of a person is unique, it can be used to accurately identify a person's identity. Globally, DNA technology is used to help enforcement agencies identify both perpetrators and victims in criminal cases.
- In medicine, DNA is used to identify the susceptibility of a person to diseases such as cancer and Alzheimer's. In civilian life, DNA can be used to establish parentage of children or sibling relationships.
- However, the use of DNA technology also raises major concerns relating to consent (i.e. the right to refuse to provide a bodily substance), privacy and data security. Hence, countries the world over have felt the need to strictly regulate the use of DNA.
- It is hoped that the new law would fill a major gap, as the use of DNA technology in India has been left unregulated. Unfortunately, there are major lacunae in the way the new law addresses core issues such as privacy and fundamental rights.

Features of the DNA Technology (Use and Application) Regulation Bill, 2019

pib
DNA Technology
Regulation Bill – 2019
Will help identify missing persons, victims, offenders, under trials and unknown deceased persons.
Empower criminal justice delivery system by enabling the application of DNA evidence.
Establishment of the National and Regional DNA Data Banks that will assist in forensic investigations.
Give fillip to development of uniform code of practices in all laboratories involved in DNA testing.

- The DNA Technology (Use and Application) Regulation Bill, 2019 was introduced in Lok Sabha by the Minister for Science and Technology in July 2019. The Bill provides for the regulation of use of DNA technology for establishing the identity of certain persons. The same Bill had been previously introduced in Lok Sabha in August 2018, but lapsed.
- **Use of DNA Data**: Under the Bill, DNA testing is allowed only in respect of matters listed in the Schedule to the Bill. These include offences under the Indian Penal Code, 1860, and for civil matters such as paternity suits. Further, the Schedule includes DNA testing for matters related to establishment of individual identity.
- **Collection of DNA**: While preparing a DNA profile, bodily substances of persons may be collected by the investigating authorities. Authorities are required to obtain consent for collection in certain situations. For arrested persons, authorities are required to obtain written consent if the offence carries a punishment of up to seven years.
- If the offence carries more than seven years of imprisonment or death, consent is not required. Further, if the person is a victim, or relative of a missing person, or a minor or disabled person, the authorities are required to obtain the written consent of such victim, or relative, or parent or guardian of the minor or disabled person. If consent is not given in these cases, the authorities can approach a Magistrate who may order the taking of bodily substances of such persons.
- **DNA Data Bank:** The Bill provides for the establishment of a National DNA Data Bank and Regional DNA Data Banks, for every state, or two or more states. DNA laboratories are required to share DNA data prepared by them with the National and Regional DNA Data Banks. Every Data Bank will be required to maintain indices for the following categories of data: (i) a crime scene index, (ii) a suspects' or under trials' index, (iii) an offenders' index, (iv) a missing persons' index, and (v) an unknown deceased persons' index.
- **Removal of DNA profiles:** The Bill states that the criteria for entry, retention, or removal of the DNA profile will be specified by regulations. However, the Bill provides for removal of the DNA profiles

of the following persons: (i) of a suspect if a police report is filed or court order given, (ii) of an undertrial if a court order is given, and (iii) on written request, for persons who are not a suspect, offender or under trial, from the crime scene or missing persons' index.

- **DNA Regulatory Board**: The Bill provides for the establishment of a DNA Regulatory Board, which will supervise the DNA Data Banks and DNA laboratories. The Secretary, Department of Biotechnology, will be the ex officio Chairperson of the Board. The Board will comprise additional members including: (i) experts in the field of biological sciences, and (ii) Director General of the National Investigation Agency and the Director of the Central Bureau of Investigation.
- **Functions of the Board:** The functions of the Board include: (i) advising governments on all issues related to establishing DNA laboratories or Data Banks, and (ii) granting accreditation to DNA laboratories. Further, the Board is required to ensure that all information relating to DNA profiles with the Data Banks, laboratories, and other persons are kept confidential.
- **Offences:** The Bill specifies penalties for various offences, including: (i) for disclosure of DNA information, or (ii) using DNA sample without authorization. For instance, disclosure of DNA information will be punishable with imprisonment of up to three years and fine of up to one lakh rupees.

Concerns regarding New DNA Bill

- In criminal cases, the law specifies the requirement of written consent before DNA samples are collected for testing from criminal suspects or under trials, offenders, victims of a crime, and missing or unidentified deceased persons.
- Once these samples are analysed by a DNA laboratory, they will be stored in a national DNA data bank under various categories depending on whether the DNA has been collected from a crime scene, suspects or offenders, or unidentified deceased persons. For such criminal cases, safeguards are specified on limiting access to the DNA data bank and conditions under which DNA information can be deleted.
- However, the new law goes well beyond criminal matters and regulates civilian and medical use of DNA. This is where major concerns arise and affect issues as diverse as parentage disputes, medical negligence, and any matter related to establishing an individual's identity. On these issues, the new law does not prescribe any safeguards.
- For example, the law does not require the consent of an individual while giving DNA samples in civil matters such as a paternity suit. The ethic behind the need for consent is that a person's bodily substances include DNA, which not only identifies the person, but also reveals her genetic information such as physical and medical traits. Such information may affect her privacy, and so consent offers a safeguard against DNA misuse.
- Or consider the provision related to the national DNA database that is being created under the law. As the name suggests, the database is a central repository of DNA information of individuals covered by the law. While the database will have information related to criminal offences, the law is unclear on whether DNA collected for civil cases will be stored in this database.
- This is because the law requires all DNA laboratories to share DNA test results with the data bank. Therefore, were a DNA laboratory to analyse a DNA sample in the course of a private dispute between parties (say, an in vitro fertilization clinic and a pregnant woman), would it share this information with the data bank?
- The Bill in question does not state that DNA information related to civil matters will not be stored in it. Note that the Combined DNA Index System (CODIS) in the US and the National Criminal Intelligence DNA Database in the UK are national DNA data banks with information related only to criminal investigations.
- Further, if DNA information related to civil matters is stored in the data bank, it may violate the fundamental right to privacy as laid down by the Supreme Court. The Court has stated that the right to privacy may be infringed only through the enactment of a law, and that law must achieve a public purpose that's proportionate to the infringement of privacy. Since the storage of DNA profiles for civil matters (such as paternity suits and medical diagnoses) may not serve a public purpose, it may violate the right to privacy.
- A more fundamental issue is ambiguity on whether the law intends to regulate DNA tests conducted in medical and diagnostic settings. For instance, many laboratories across the country offer such tests to determine a person's predisposition to cancer, diabetes and other diseases.

Conclusion:

The Bill needs rigorous scrutiny by a cross-section of experts and wider consultations. This can be achieved if the Bill is referred to a parliamentary committee. Otherwise, it could be a missed opportunity to effectively regulate the use of DNA technology.

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GOVERNMENT PLANS TO BRING SOCIAL SECURITY SCHEMES UNDER ONE UMBRELLA

CONTEXT

The government proposes to bring at least half a dozen social security schemes, including old age pension and insurance, under the ambit of the proposed social security code.

⊙ ABOUT:

- The move is aimed at universalisation by bringing all existing schemes under one umbrella without any additional cost to the exchequer and is expected to cover more than 20% of the bottom of the population.
- The labour ministry will shortly finalise a list of the existing social security schemes that can be brought under the social security code once the code is approved by Parliament and notified.
- The move is aimed at consolidating millions of beneficiaries of the existing social security schemes under one administration for effective implementation and to avoid duplication.
- The schemes expected to immediately come under the code are the PM Shram Yogi Maandhan scheme, the PM Laghu Vyapari Maandhan Yojana and the Atal Pension Yojana.
- All these are voluntary contribution pension schemes in which contribution is made by the subscriber and matched by the Centre, making the beneficiary eligible for Rs 1,000-5,000 per month pension after attaining the age of 60.
- Schemes completely funded by the Centre such as the old-age pension scheme and the health insurance schemes, including the Pradhan Mantri Jeevan Jyoti Bima Yojana under which individuals contribute a miniscule amount year after year for availing health insurance, could be brought in next.
- Section 13 of the proposed social security code provides for bringing all existing social security schemes under the code through notification. Notwithstanding anything contained in this code, the central government may, by notification, assign additional functions to a social security organisation including administration of any other Act or scheme relating to social security subject to such provisions as may be specified in this behalf in the notification.

How effective are social security and welfare in India?

- India spends 1.4 percent of its GDP on social protection, among the lowest in Asia, far lower than China, Sri Lanka, Thailand, and even Nepal.
- India's growth story of the last two decades has had one recurring theme: that the pattern of economic growth is accentuating insecurities. Yet, there continues to be a deep divide over whether the gains from growth ought to be ploughed back to achieve social security for everyone.
- Social security has come to be linked to job benefits, tying it to one's status as a worker in the formal or the informal economy when, fundamentally, it originates from the notion of ensuring everyone protection against vulnerability and deprivation.
- **Constitutional provision:** In the Constitution, Article 41 of Directive Principles asks the state to "within the limits of its economic capacity and development," make effective provision for securing the right to work, to education and to public assistance in cases of unemployment, old age, sickness and disablement, and in other cases of undeserved want." Article 42 says the state shall make provisions for securing just and humane conditions of work and for maternity benefits.
- **Recognition of minimum social security cover**: India does not yet explicitly recognise a national minimum social security cover. In recent years, including with an intervention by the Supreme Court in the Right to Food case, the government has moved forward to providing nutrition and employment support with a legal guarantee through the MGNREGA.
- **Economists Amartya Sen and Jean Dreze** distinguish two aspects of social security —"protection" and "promotion." While the former denotes protection against a fall in living standards and living conditions through ill health, accidents, the latter focuses on enhanced living conditions, helping everyone overcome persistent capabilities deprivation.
- A close look at India's record in providing social security shows that while only a fraction of citizens enjoy any "protection" at all, these are being further eroded with the current pattern of economic growth.
- The government launched the first pensions programme for the poor, the National Social Assistance Programme, starting with of a pension of Rs. 75 per month, in 1995. Under the Indira Gandhi Old Age Pension Scheme and Widow Pension Scheme, the Central government contributes Rs.

200 and Rs. 300 per month respectively. Several States, Himachal Pradesh, Rajasthan, and Bihar provide between Rs. 400-300 per month, while Tamil Nadu provides Rs. 1000 per month.

- Atal Pension Yojna was announced in Budget 2015-16 as an upgrade to the Swavalamban scheme, which folds into the new defined benefit pension scheme for the poor.

A universal social security

- The biggest gap, and one which may only widen, is in social protection for the working poor. The UPA government appointed the National Commission for Enterprises in the Unorganised Sector (NCEUS) in 2004 to look into livelihood conditions and social security for unorganised workers — employed in the unorganised sector and those in the formal sector without any social protection. It found that only those in the formal sector, 8 per cent of India's workforce, enjoys social security. Over 91 percent of workers, over 39.5 crore workers, are in the informal sector.
- The Commission highlighted that there had been almost no growth in formal employment since early 1990s and almost all growth in employment was in the unorganised sector. NCEUS' finding that 79 percent of workers in the unorganised sector lived on an income of less than Rs. 20 a day made it evident that the gains of growth were bypassing the majority of the working population.
- The NCEUS proposed legislation for a national minimum security package for unorganised sector workers, social insurance, social assistance for life and health cover, old age benefits to all workers within a period of five years financed by the Centre and state governments, employers (where identifiable) and workers at a cost of less than 0.5 percent of Gross Domestic Product after five years. The government discarded the Commission's recommendations for statutory backing to social protection.

⊙ CONCLUSION:

Social Security in any country is to the interest of all other countries, since it contributes to political stability, economic well-being, and is the embodiment of belief in the innate dignity and worth of the common man. The introduction of this new section will make it easy for the government to consolidate all schemes under the proposed Social Security Organisation without having to go to Parliament for bringing all such schemes under one roof as they are currently being administered by different ministries including the finance ministry and the rural development ministry.

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SECTION: B

(PRELIMS)

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INDIA COMPONENT OF THE NDC

⊙ CONTEXT: **NITI Aayog virtually launched the India Component of the Nationally Determined Contributions - NDC-Transport Initiative for Asia –TIA.**

⊙ ABOUT:

- With the aim to promote a comprehensive approach to decarbonize transport in India, Vietnam, and China, **NDC–TIA** is a joint programme, supported by the **International Climate Initiative (IKI)** of the German Ministry for the Environment, **Nature Conservation and Nuclear Safety (BMU)** and implemented by a consortium of seven organisations, namely:
  - Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
  - International Council on Clean Transportation (ICCT)
  - World Resources Institute (WRI)
  - International Transport Forum (ITF)
  - Agora Verkehrswende (AGORA)
  - Partnership on Sustainable, Low Carbon Transport (SLoCaT) Foundation
  - Renewable Energy Policy Network for the 21st Century e.V. (REN21)

The Indian Component

- The India Component is implemented by six consortium organisations, all except SLoCaT.
- **Implementing partner:** On behalf of the Government of India, NITI Aayog, the country's premier policy think tank, will be the implementing partner.
- **Duration:** The NDC-TIA programme has a duration of 4 years.
- It will allow India and other partner countries to achieve accountable long-term targets by making a sectoral contribution through various interventions, coordinated with a large number of stakeholders in the domain.
- This will contribute towards achieving their NDCs and increasing their ambition in the transport sector of 2025 NDCs.

How will it work?

- The NDC–TIA India Component will focus on-
  - establishing a multi-stakeholder dialogue platform for decarbonizing transport in India
  - strengthening GHG and transport modelling capacities
  - providing technical support on GHG emission reduction measures
  - financing climate actions in transport
  - offering policy recommendations on electric vehicle (EV) demand and supply policies
  - evaluating business models through cost-benefit analyses and so forth.
- A significant focus will be given on electric mobility, which would require coupling of transport and energy sectors and receiving cross-sectoral expertise from ministries, international development agencies, think tanks, public and private organisations.

- Ultimately, the programme intends to support the development of policies and regulations to promote electric vehicle charging infrastructure uptake and smooth widescale adoption of EVs in India.
- The programme aims at high ambition in the transport sector directly supporting the country's NDC targets.

The need

- India has a massive and diverse transport sector that caters to the needs of billion people.
- It has the world's second-largest road network, which contributes to maximum greenhouse gas (GHG) emissions through all means of transportation.
- With increasing urbanisation, the fleet size i.e. the number of sales of vehicles is increasing rapidly. It is projected that the total number of vehicles will be doubled by 2030.

CONTINGENCY FUND (CF)

⊙ CONTEXT:

The Reserve Bank of India (RBI), the government's banker, has retained a whopping amount of Rs 73,615 crore within the RBI by transferring it to the Contingency Fund (CF) of the central bank, thus leading to a sharp fall in the transfer of surplus to the government in the current year.

⊙ ABOUT:

- The Contingency Fund of India is established under **Article 267** of the Indian Constitution. It is in the nature of an imprest (money maintained for a specific purpose).

RBI'S CONTINGENCY FUND

(In ₹ crore)

2020	2,64,034
2019	1,96,344
2018	2.32,108
2017	2,28,207
2016	2,20,183
2015	2,21,614
2014	2,21,652
2013	2,21,652
2012	1,95,405

- This is a specific provision meant for meeting unexpected and unforeseen contingencies, including depreciation in the value of securities, risks arising out of monetary/exchange rate policy operations, systemic risks and any risk arising on account of the special responsibilities enjoined upon the Reserve Bank.
- Simply put, the fund that is set up specifically to meet the challenges at the time of a crisis
- This amount is retained within the RBI.
- The Secretary to the Government of India, Ministry of Finance, Department of Economic Affairs holds the fund on behalf of the President.

Contingency Funds for States

- Similarly, Article 267(2) of the Indian constitution authorises state legislatures to set up contingency funds for the states in order to meet emergency situations.
- The fund will be kept under the disposal of the State Governor and any use of the fund can be done after gaining approval from the State legislature.

- Any expenditure incurred from this fund requires a subsequent approval from the Parliament and the amount withdrawn is returned to the fund from the Consolidated Fund.

Consolidated Fund of India

- This fund was constituted under Article 266 (1) of the Constitution of India.
- All revenues received by the government by way of direct taxes and indirect taxes, money borrowed and receipts from loans given by the government flow into the Consolidated Fund of India.
- All government expenditure is made from this fund, except exceptional items which are met from the Contingency Fund or the Public Account.
- Importantly, no money can be withdrawn from this fund without the Parliament's approval.

What's the CGRA account?

- The Currency and Gold Revaluation Account (CGRA) is maintained by the Reserve Bank to take care of currency risk, interest rate risk and movement in gold prices.
- Unrealised gains or losses on valuation of foreign currency assets (FCA) and gold are not taken to the income account but instead accounted for in the CGRA.
- Net balance in CGRA, therefore, varies with the size of the asset base, its valuation and movement in the exchange rate and price of gold.
- CGRA provides a buffer against exchange rate/ gold price fluctuations.
- It can come under pressure if there is an appreciation of the rupee vis-à-vis major currencies or a fall in the price of gold.

NEW RULES FOR ADMINISTRATION OF J&K

⊙ CONTEXT:

- **The Ministry of Home Affairs (MHA) has notified new rules for administration in the Union Territory of Jammu and Kashmir that specify the functions of the Lieutenant Governor (LG) and the Council of Ministers.**

⊙ ABOUT:

- There will be 39 departments in the Union Territory of Jammu and Kashmir, including agriculture, school education, higher education, horticulture, floriculture, election, general administration, home, mining, power, PWD, transport and tribal affairs.
- All communications received from the Centre, including those from the prime minister and other ministers, shall be submitted to the-
  - Chief secretary
  - the minister in charge of the matter under consideration
  - the chief minister
  - the lieutenant governor, unless such communication is of a routine or unimportant nature.
- The LG, on the advice of the chief minister (when elected), shall allot the business of the government among the ministers by assigning one or more departments to a minister.

Background

- Article 370 of the Constitution, which gave a special status to the erstwhile state of Jammu and Kashmir, was abrogated on August 5, 2019 and subsequently, the state was bifurcated into Union territories — Jammu and Kashmir and Ladakh.
- The Union territories came into existence on October 31 last year.

Collective responsibility

- The council (of ministers) shall be collectively responsible for all the executive orders issued by any department in the name of the LG and contracts made in the name of the president in connection with the administration of the Union Territory, whether such orders or contracts are authorised by a minister with respect to a matter pertaining to a department under his charge or as a result of discussions at a meeting of the council.

What in case of a difference?

- It is clear that in case of a difference of opinion between the LG and the council of ministers (when it is formed) with regard to any matter, the former shall refer it to the Centre for the decision of the president and shall act according to that decision.
- Where no resolution is found for a month, it is the lieutenant governor's decision that will be deemed to be final.

Who will have more power? CM or LG?

- The functions of "police, public order, All India Services and anti-corruption" will fall under the purview of the lieutenant governor.
- This means that the chief minister or his council of ministers will have no say in the functioning of the services.
- Proposals or matters which affect or are likely to affect the peace and tranquility of the UT or the interest of any minority community, the Scheduled Castes, the Scheduled Tribes and the Backward Classes "shall essentially be submitted to the Lieutenant Governor through the Chief Secretary, under intimation to the Chief Minister, before issuing any orders."
- On the other hand, the council of ministers headed by the chief minister will decide upon service matters of non-All India Services officers, proposals to impose new taxes, land revenue, sale, grant or lease of government properties, reconstituting departments or offices and draft laws.

NITI AAYOG'S EXPORT PREPAREDNESS INDEX 2020

⊙ CONTEXT: **Niti Aayog in partnership with the Institute of Competitiveness released the first Export Preparedness Index (EPI) 2020.**

⊙ ABOUT:

What is Export Preparedness Index (EPI) 2020?

- The EPI intends to identify challenges and opportunities and encourage a facilitative regulatory framework.
- **Parameters:** The index ranked states on four key parameters –
  - policy
  - business ecosystem

- export ecosystem
- export performance

- **Sub-pillars:** The index also took into consideration 11 sub-pillars -- export promotion policy; institutional framework; business environment; infrastructure; transport connectivity; access to finance; export infrastructure; trade support; R&D infrastructure; export diversification; and growth orientation.

Key-highlights of the Index

- Gujarat has topped the Niti Aayog's Export Preparedness Index 2020 followed by Maharashtra and Tamil Nadu in the second and third place respectively.
- **Coastal States:** Six coastal states -- Gujarat, Maharashtra, Tamil Nadu, Odisha, Karnataka and Kerala -- feature in the top ten rankings, indicating the presence of strong enabling and facilitating factors to promote exports.
- **Landlocked States:** Among the landlocked states, Rajasthan has performed the best, followed by Telangana and Haryana.
- **Himalayan States:** Among the Himalayan states, Uttarakhand topped the chart, followed by Tripura and Himachal Pradesh.
- **Union Territories:** Across Union Territories, Delhi has performed the best, followed by Goa and Chandigarh.
- The report stated that Chattisgarh and Jharkhand are two landlocked states that had initiated several measures to promote exports.

Fundamental Challenges

- Based on the findings of the report, export promotion in India faces three fundamental challenges:
  - intra- and inter-regional disparities in export infrastructure
  - poor trade support and growth orientation among states
  - poor R&D infrastructure to promote complex and unique exports

What needs to be done?

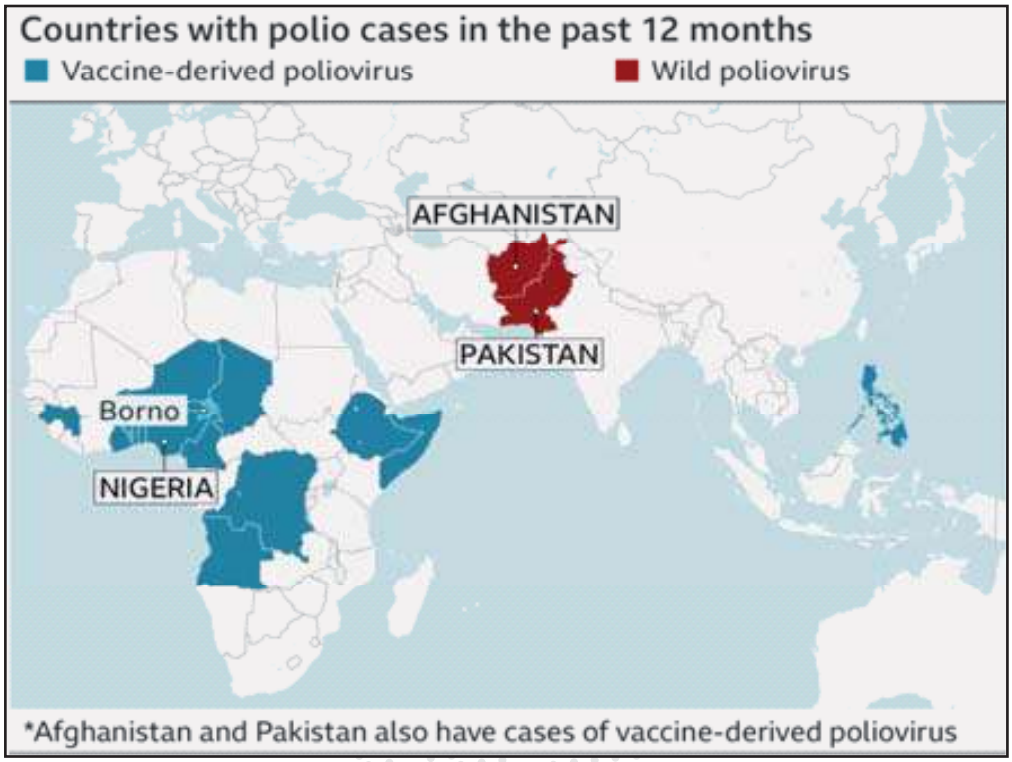
- There is a need to emphasise on key strategies to address these challenges:
  - a joint development of export infrastructure
  - strengthening industry-academia linkages
  - creating state-level engagements for economic diplomacy.
- To achieve the target of making India a developed economy by focusing on 'Atmanirbhar Bharat,' there is a need to increase exports from all the states and Union Territories. The EPI provides invaluable insights on how states can attain this goal.

AFRICA DECLARED FREE OF WILD POLIO IN 'MILESTONE'

⊙ CONTEXT: **Africa has been declared free from wild polio by the independent body, the Africa Regional Certification Commission.**

◉ ABOUT:

What is polio?



- Polio is a virus which spreads from person to person, usually through contaminated water. It can lead to paralysis by attacking the nervous system.
- Polio usually affects children under five, sometimes leading to irreversible paralysis. Death can occur when breathing muscles are affected.
- The disease is now only found in Afghanistan and Pakistan.
- There is no cure but the polio vaccine protects children for life.
- Two out of three strains of wild polio virus have been eradicated worldwide.

Types of Poliovirus

- There are three wild types of poliovirus (WPV) – type 1, type 2, and type 3. People need to be protected against all three types of the virus in order to prevent polio disease and the polio vaccination is the best protection.
- Type 2 wild poliovirus was declared eradicated in September 2015, with the last virus detected in India in 1999.
- Type 3 wild poliovirus was declared eradicated in October 2019. It was last detected in November 2012.
- Only type 1 wild poliovirus remains. There are two vaccines used to protect against polio disease, oral polio vaccine and inactivated poliovirus vaccine.

How serious is polio?

- Polio, or poliomyelitis, mainly affects children aged under five.
- Initial symptoms include fever, fatigue, headache, vomiting, stiffness of the neck and pains in the limbs.
- It also invades the nervous system and can cause total paralysis in a matter of hours.
- One in 200 infections leads to irreversible paralysis. Among those paralysed, 5% to 10% of people die when their breathing muscles become immobilised.

- Polio can be easily imported into a country that is polio free and from there it can spread rapidly among under-immunised populations.
- The WHO says that it is important countries remain vigilant and avoid complacency until there is global eradication.
- For all types of polio to be eliminated, including vaccine-derived polio, vaccination efforts will need to continue alongside surveillance, to protect children from being paralysed by the disease in the future.

GLANDERS DISEASE

⊙ CONTEXT:

The Delhi High Court asked municipal bodies to take steps to prevent spread of glanders disease in animals including horses and issued notice to the Delhi government and others on an application filed by the People for the Ethical Treatment of Animals (PETA), India.

⊙ ABOUT:

- Glanders is an infectious disease that is caused by the bacterium Burkholderia mallei.
- While people can get the disease, glanders is primarily a disease affecting horses.
- It also affects donkeys and mules and can be naturally contracted by other mammals such as goats, dogs, and cats.

Transmission of the disease

- The bacteria that cause glanders are transmitted to humans through contact with tissues or body fluids of infected animals.
- The bacteria enter the body through cuts or abrasions in the skin and through mucosal surfaces such as the eyes and nose.
- It may also be inhaled via infected aerosols or dust contaminated by infected animals.
- Sporadic cases have been documented in veterinarians, horse caretakers, and laboratorians.

Signs and Symptoms

Symptoms of glanders commonly include:

- Fever with chills and sweating
- Muscle aches
- Chest pain
- Muscle tightness
- Headache
- Nasal discharge
- Light sensitivity (sometimes with excessive tearing of the eyes)

The Petition

- The **People for the Ethical Treatment of Animals** (PETA) has filed a petition in the Delhi High Court with regards to the issue of Glanders in horses, mules, ponies, and donkeys in Delhi seeking directions to implement Prevention and Control of Infectious and Contagious Disease in Animal Act, 2009 and **National Action Plan** for its control and eradication.
- The petition states that "**Glanders is a zoonotic disease and is transmitted from animal to humans and in case if preventive measures are not taken at once then even the human beings may get infected which may be fatal for the humans.**"

About PETA

- People for the Ethical Treatment of Animals (PETA) is the largest animal rights organization in the world, with more than 6.5 million members and supporters.
- Founded in 1980, PETA opposes speciesism, a human-supremacist worldview, and focuses its attention on the four areas in which the largest numbers of animals suffer the most intensely for the longest periods of time:
  - in laboratories
  - in the food industry
  - in the clothing trade
  - in the entertainment industry
- PETA works through public education, cruelty investigations, research, animal rescue, legislation, special events, celebrity involvement, and protest campaigns.

COUNTRY'S LONGEST 'ROPEWAY OVER A RIVER' INAUGURATED IN GUWAHATI

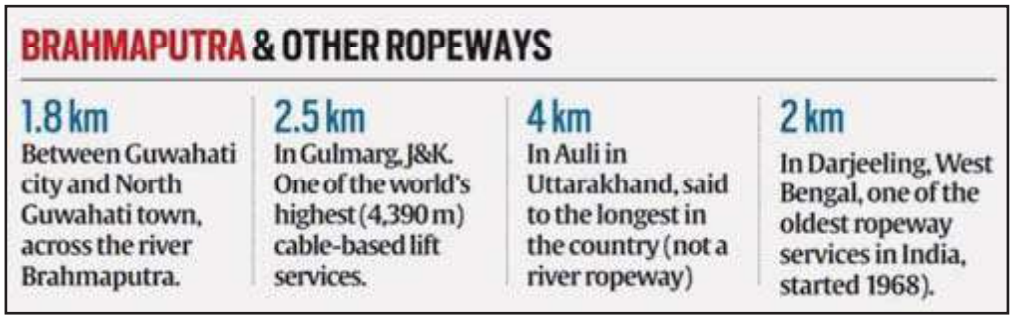
⊙ CONTEXT: **The Assam government inaugurated a 1.8-km-long ropeway over the Brahmaputra, connecting Guwahati to North Guwahati. It is the longest ropeway on a river in India.**

⊙ ABOUT:

- Built at a cost of Rs 56 crore, it comprises of two cabins, each with a capacity of 30 passengers and one operator.
- It takes eight minutes to traverse the entire length of the ropeway.
- The ropeway uses a "twin-track, single-haul, bi-cable double reversible jig back" system.
- The ropeway comprises two cabins — each with a capacity of 30 passengers plus one operator.
- The ropeway will be operated from Kachari Ghat in Guwahati and the Dol Govinda Temple in North Guwahati.
- It will pass the **Umananda Temple** on a small island in the middle of the Brahmaputra.
- This is said to be of one of the most advanced & longest river crossing Aerial Tramway systems in India.

What is the need of a ropeway?

- Thousands of people commute every day between the capital city of Guwahati and the town of North Guwahati, where IIT Guwahati is located.
- The ropeway cuts travel time between the two banks to 8 minutes.
- The current travel options between the two banks are by ferry (30 minutes or more, depending on current and season) or by road through a bridge that usually takes over an hour in the traffic.


BRAHMAPUTRA & OTHER ROPEWAYS
1.8 km
Between Guwahati city and North Guwahati town, across the river Brahmaputra.
2.5 km
In Gulmarg, J&K. One of the world's highest (4,390 m) cable-based lift services.
4 km
In Auli in Uttarakhand, said to the longest in the country (not a river ropeway)
2 km
In Darjeeling, West Bengal, one of the oldest ropeway services in India, started 1968).

Significance of the initiative

- It will help in not only promoting tourism but also make commuting easier.
- This is said to be of one of the most advanced & longest river crossing Aerial Tramway systems in India.

CHINA TWIST IN INDIA-BANGLADESH RIVER DISPUTE

⊙ CONTEXT: **With the India-Bangladesh water-sharing deal stuck, Dhaka has begun to discuss a Chinese loan to manage the river.**

⊙ ABOUT:

The current issue

- Bangladesh is discussing an almost $1 billion loan from China for a comprehensive management and restoration project on the Teesta river.
- The project is aimed at managing the river basin efficiently, controlling floods, and tackling the water crisis in summers.
- India and Bangladesh have been engaged in a long-standing dispute over water-sharing in the Teesta.
- More importantly, Bangladesh's discussions with China come at a time when India is particularly wary about China following the standoff in Ladakh

How has the Teesta dispute progressed?

- The two countries were on the verge of signing a water-sharing pact in September 2011, when Prime Minister Manmohan Singh was going to visit Bangladesh.
- But, West Bengal Chief minister Mamata Banerjee objected to it, and the deal was scuttled.

Basin details

- The Teesta River originates from the **Pahunri (or Teesta Kangse)** glacier above 7,068 m, and flows southward through gorges and rapids in the **Sikkim Himalaya.**
- The river then flows past the town of **Rangpo** where the **Rangpo River** joins, and where it forms the border between Sikkim and West Bengal up to Teesta Bazaar.
- Just before the Teesta Bridge, where the roads from Kalimpong and Darjeeling join, the river is met by its main tributary, the **Rangeet River**.

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OPTIONAL SUBJECTS BOOKS, TEST SERIES, VIDEOS & NOTES	STATE PCS, SSC, BANKING BOOKS, TESTS VIDEOS & NOTES		
1.GEOGRAPHY	1.UPPSC	2.SSC	3.MPSC
2.HISTORY	4.IBPS	5.RAS & RPSC	
3.MATHEMATICS	ENGINEERING BOOKS & MATERIAL		
4. SOCIOLOGY	1. IES	2. GATE	3. IFoS
5.PUBLIC ADMINISTRATION	4. COMPUTER SCIENCE		
6. POLITICAL SCIENCE	5. MECHINICAL ENGINEERING		
7. ECONOMICS	OTHER TELEGRAM CHANNELS		
8 PHYSICS	1 GOVERNMENT JOBS		
9 COMMERCE ACCOUNTANCY	2 LEARN YOGA & MEDITATION		
10 ANTHROPOLOGY	3 LEARN ENGLISH		
11 LAW	4 BEST DELAS & OFFERS		
12 PHILOSOPHY	5 IAS HINDI BOOKS		
13 CHARTERED ACCOUNTANTANCY	6 PDFs FOR ALL EXAMS		
14 MEDICAL SCIENCE	7. WORLD DIGITAL LIBIRARY		
1.CHENNAI STUDENTS	2.BANGLORE STUDENTS	3. CURRENT AFFAIRS	

CONTACT FOR ADVERTISEMENT IN ABOVE CHANNLES

ADMIN1:	ADMIN2:

- At this point, it changes course southwards flowing into West Bengal.
- The river then goes merging up with the Brahmaputra River after it bifurcates the city of Jalpaiguri and flows just touching Cooch Behar district at Mekhliganj and moves to Fulchori in Bangladesh.
- Teesta river ultimately drains into Brahmaputra at Teestamukh Ghat in Kamarjani-Bahadurabad in Rangpur district of Bangladesh.
- Teesta and most of its tributaries are flashy mountain rivers and carry boulders and considerable quantity of sediment. The flow is turbulent and characterised by high velocities.
- The Teesta basin in India extends over an area of 9,855 sq.km, which is nearly 0.28% of the total geographical area of the country.
- The basin lies in the states of Sikkim (72.43%) and West Bengal (27.57%).
- Teesta is a 414 km long river with total drainage area of 12,540 sq.km,flowing through India and Bangladesh.

India and Bangladesh's relationship over the years

- New Delhi has had a robust relationship with Dhaka, carefully cultivated since 2008, especially with the Sheikh Hasina government at the helm.
- India has benefited from its security ties with Bangladesh, whose crackdown against anti-India outfits has helped the Indian government maintain peace in the eastern and Northeast states.
- Bangladesh has benefited from its economic and development partnership. Bangladesh is India's biggest trade partner in South Asia.
    - Bilateral trade has grown steadily over the last decade: India's exports to Bangladesh in 2018-19 stood at $9.21 billion, and imports from Bangladesh at $1.04 billion.
- India also grants 15 to 20 lakh visas every year to Bangladesh nationals for medical treatment, tourism, work, and just entertainment.
- For India, Bangladesh has been a key partner in the neighbourhood first policy — and possibly the success story in bilateral ties among its neighbours.
- However, there have been recent irritants in the relationship.

How Bangladesh and China are growing together?

- **Biggest trading partner:** China is the biggest trading partner of Bangladesh and is the foremost source of imports.
- **Increase in exports:** Recently, China declared zero duty on 97% of imports from Bangladesh. The concession flowed from China's duty-free, quota-free programme for the Least Developed Countries.
- **Huge financial assistance:** India too has provided developmental assistance worth $10 billion, making Bangladesh the largest recipient of India's total of $30 billion aid globally. China has promised around $30 billion worth of financial assistance to Bangladesh.
- **Strong defence ties:** Additionally, Bangladesh's strong defence ties with China make the situation complicated.
- **Biggest arm supplier:** China is the biggest arms supplier to Bangladesh. Bangladesh forces are equipped with Chinese arms including tanks, missile launchers, fighter aircraft and several weapons systems. Recently, Bangladesh purchased two Ming class submarines from China.

ARMED FORCES TRIBUNAL

⊙ CONTEXT: **In a latest development, the Delhi-based principal bench of the Armed Forces Tribunal initiated hearing of matters pertaining to regional benches through video conferencing.**

⊙ ABOUT:

- The **Armed Forces Tribunal Act 2007**, was passed by the Parliament and led to the formation of AFT with the power provided for the adjudication or trial by Armed Forces Tribunal of disputes and complaints with respect to commission, appointments, enrolments and conditions of service in respect of persons subject to
  - The Army Act, 1950
  - The Navy Act, 1957
  - The Air Force Act, 1950
- It can further provide for appeals arising out of orders, findings or sentences of courts-martial held under the said Acts and for matters connected therewith or incidental thereto.

Benches

- Besides the Principal Bench in New Delhi, AFT has Regional Benches at
  - Chandigarh
  - Lucknow
  - Kolkatta
  - Guwahati
  - Chennai
  - Kochi
  - Mumbai
  - Jaipur
- With the exception of the Chandigarh and Lucknow Regional Benches, which have three benches each, all other locations have a single bench.
- For a total of 11 benches of AFT, which includes Principal Bench and 10 regional benches spread all over the country, 34 judicial and administrative members have been sanctioned by the government.

Composition of the Bench

- Each Bench comprises of a Judicial Member and an Administrative Member.
- The Judicial Members are **retired High Court Judges** and Administrative Members are **retired Members of the Armed Forces** who have held rant of **Major General/ equivalent** or above for a period of three years or more, **Judge Advocate General (JAG**), who have held the appointment for at least one year are also entitled to be appointed as the Administrative Member.
- The Tribunal shall transact their proceedings as per the **Armed Forces Tribunal (Procedure) rules, 2008.** All proceedings in the Tribunal will be in English. The Tribunal will normally follow the procedure as is practiced in the High Courts of India.

OMEGA CENTAURI GLOBULAR CLUSTER

⊙ CONTEXT: **Scientists at Indian Institute of Astrophysics (IIA) discovered He-enhanced cool bright stars among the metal-rich parts of Omega Centauri globular cluster.**

⊙ ABOUT:

- Omega Centauri, the **largest and brightest** of all globular star clusters, is a globe-shaped stellar city, teeming with millions of stars. It is estimated to contain several million stars; several hundred variables have been observed in it.
  - Globular clusters are large, symmetrically shaped groupings of stars, fairly evenly distributed around the core of our Milky Way galaxy.
  - The globular clusters are stellar systems consisting of millions of stars that are formed from a gaseous cloud.
- **Location:** It is located in the southern constellation Centaurus.
- **Mass:** Having a mass of 5 million suns, Omega Centauri is 10 times more massive than a typical globular cluster.
- **Diameter:** Omega Centauri has a diameter of 230 light-years.
- **Magnitude:** It has a magnitude of 3.7 and is visible to the unaided eye as a faint luminous patch. Omega Centauri is about 16,000 light-years from Earth and is thus one of the nearer globular clusters.

The 'H' Element

- While in most stars, H is the most abundant element.
- If the abundance of H is reduced, correspondingly He abundance increases because the sum of H and He is a constant, and the other heavier elements are in traces.

Key-findings

- This is the first time He abundance has been found in Omega Centauri and the work has been published in 'The Astrophysical Journal'.
- The different stars of Omega Centauri are not made of the same metal content which is also an indicator of its age.
- With the anomalous elemental abundances, the formation of these are at times different from normal.
- To be sure, the abundances are made on the back of an assumption that "He is one-tenth of the H-abundance."

The method

- Scientists studied the spectrum by using a **low-resolution spectra** which had been obtained from the **Optometric Medium Resolution Spectrograph (OMRS)** installed with the **Vainu Bappu Telescope**, Vainu Bappu Observatory, Kavalur, India.
- They identified the **mild Helium** and **Helium** enhanced stars.
- Moreover, in order to measure the amount of He that is present in the identified bright/cool stars of Omega Centauri, the scientists used a high-resolution spectra that has been obtained from the **Southern African Large Telescope (SALT).**

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